PORSCHE PANORAMA

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PORSCHE PANORAMA

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EDITOR: CHARLES BEIDLER, JR.

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Cheshire, Conn.

PCA NORTHEAST
Joseph Wenckus, *Pres.*
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24 Buena Vista
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PCA KENTUCKY
Francis E. Beckett, *Pres.*
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Van Voorhis Manor
Ft. Knox, Ky.

For PCA activities in other areas, contact the following:

FLORIDA, Louis C. Lamb, 3640 S. W. 82nd Ave., Miami 55
CALGARY, CANADA, Robert W. Brews, 1504 Scotland St.

PCA EXECUTIVE OFFICE (For all PCA Correspondence)
1542 MT. EAGLE PLACE, ALEXANDRIA, VIRGINIA

PORSCHE PANORAMA OFFICE (For all Panorama Correspondence)
BOX 131, LANGHORNE, PENNSYLVANIA

WEST COAST COORDINATOR PHILIP TROTH,
3757 Starr King Circle, Palo Alto, Calif.

PORSCHE FACES CORVAIR, FRONT WHEEL DRIVE

The true story of the relationship between Corvair and Porsche and many other subjects were candidly discussed by Ferry Porsche with the editor of AUTOMOTIVE NEWS during a recent visit to Detroit.

IDEAS EXCHANGED

Discussing the common belief that much of the Corvair was designed by Porsche engineers, Porsche said, "We really had nothing to do with the Corvair. We know the General Motors people very well. They visited us and we visited them and we exchange ideas."

"But there was no 'official' consultation between Chevrolet and ourselves. There was absolutely no actual written consultation arrangement. We have done a great deal of experimenting on road holding, steering and suspension, for example.

"The Chevrolet people have more experience with the automatic transmission. We merely exchange information."

Later, Porsche supported his claim of detachment from the Corvair by mildly criticizing it, although he said he didn't mean to criticize unduly because many manufacturing and cost factors enter into the final design of a car.

However, he said the Corvair's ride wasn't too good because of the absence of a stabilizer in front. In addition, he said the car was a little too heavy in the rear because the Chevrolet engineers chose to move the front seats rather far back so as to have more leg room in front. Another factor making for rear-end heaviness is that the Corvair's engine is bigger than the Porsche engine, he said.

MORE ROOM IN PORSCHE

"We have more leg room in our Porsche," he said, "but this is because our car is a two-seater and you can put the leg room between the front wheels. If you have a three seater, you must go behind the front wheels for leg room."

ANTI-FRONT DRIVE

Porsche said he preferred the rear engine for many reasons, not the least of which is that front drive requires four universal joints, compared to the two that are needed for the rear engine. This is less costly and results in fewer potential trouble spots.

"In a rear engine car," he continued, "all the passengers are near the middle of the car. For a small car, it's important that approximately the same percentage of the total weight be on both front and rear axles, regardless of whether the car is loaded or unloaded. This is difficult to accomplish under all conditions with a front-drive car.

"Also, the traction on a front-drive car isn't always ideal. It's good to have a little more than 50 percent on the driving axle. With front-wheel drive, more than 50 percent of the weight switches to the front end and you have excessive tire wear. The rear-engine car also has better traction on hills and on icy surfaces. The rear-engine is the best and cheapest."

Questioned about the oversteering problems that accompanies rear-engine cars, Porsche said that today "We know what to do to compensate for oversteering or understeering. We can regulate this easily. In the old days when a car had a tendency to oversteer, you had a real problem."

Although somewhat shy about talking about it, he admitted that he has done considerable work on a unique solution to the problem of weight distribution—a small, pancake engine that would fit under the floor of the passenger compartment.

Porsche said work on this idea began about six years ago, and several designs and experimental engines had been made. Although the idea is patented, he declined to comment further, other than to say that the small engine would be between the ground clearance point and the floor. He added, that this will not come in one, two or three years, but it may come some day.

OPINION OF WANKEL

As a highly regarded engineer and as a German, Porsche is uniquely qualified to evaluate the NSU-Wankel engine—the subject of widely differing opinions in this country.

He asserted, "This new NSU engine is a nice, sound idea, I think. However, it will be a couple of years before it's used in production cars. They are now building prototypes for use in experimental cars. It will take quite a long time before they're ready for production cars.

"The big obstacle is the sealing problem and the development of proper gaskets. It's too complicated for mass production. At present it's a 'watchmaker's' product and must be produced very precisely."

Porsche was an early builder of electric cars, but Porsche sees no revival of electric automobiles until electricity can be produced for cars from atomic energy, or possibly from fuel cells at low cost.

Asked about automotive engineering changes that might come in the next five years or so,

Porsche said that he didn't foresee any fundamental changes ahead for production vehicles, although "we may soon have trucks with gas turbine engines and more two-stroke Diesel engines."

Asked about changes in the House of Porsche since his father died, Porsche said that there had been no change in principle, although there had been many small changes made, some expansion and much more experience acquired by members of the firm, especially in regard to road holding and rear-engine cars.

"We get a great deal of experience from our racing activity," he explained. "But we're not like Ferrari. We pick up information and put this into our production cars. Racing is a good way to experiment with production cars, we think."

"Americans get the same kind of experience on their proving grounds as we do racing, except that when my engineers go to a race they have more enthusiasm. It's just like during a war—more progress is made than in years of peace because there is competition."

NO EUROPE RACE BAN?

Porsche said that it's unlikely that the auto makers of Germany would get together and agree to refrain from auto racing because the automobile structure in Europe is quite different than it is here. There is an organization of auto makers in Germany but they make no agreements.

After predicting that many imported cars will soon drop from sales competition here, he said, "Many of them are useless in this country. They're under-powered—this is a power-minded country. They're not roomy enough, lacking sufficient passenger and luggage space. They're ugly—Americans like better looking cars."

Then he added, "If the conceptions of the Americans were a little more timeless and a little more functional, they wouldn't have to change so fast. If you put function first in a car's design, it will be a little more timeless."

Turning the conversation to drive-line arrangements, he said the cheapest way to do it is to combine the engine, transmission and differential in one unit. This reduces the choice to either a front-wheel drive or a rear-engine, rear drive.

Editor's Note—The above article appeared in AUTOMOTIVE NEWS, August 22, 1960 and is reprinted with the permission of their editors.

PORSCHES IN COMPETITION

The "Grand Prix of Modena", a Formula II race on the Ferrari "home circuit", was a revenge victory for Porsche after the Ferrari triumph in the Solitude-Stuttgart race. "Joe" Bonnier was the winning Porsche driver with Hans Hermann and Edgar Barth placing 4th and 5th.

Porsches finished 1, 2, 3 in the Zeltweg Airfield, Austria, Formula II race. Moss, Hermann, and Barth were the "big three".

At the Watkins Glen Grand Prix races, Porsches had mixed success. In the big feature race, Bob Holbert broke a crankshaft with two laps to go and he only three seconds behind the Augie Pabst driven Meister Brauser Scarab. With Holbert out, Roger Penske, under a tremendous stretch drive, nipped the second Meister Brauser car to take second place. The recent crankshaft breakings of the RS 60's should be positive proof that reliability, long a Porsche trademark, is out the window on these overstressed engines.

The Glen C Production race saw PCAer Bruce Jennings, fighting to overtake PCAer Bill Romig in National points, just catch Dick Talbot on the last lap after being blocked for most of the race by a Corvette. Jennings now trails Romig by 8 points. . . . Romig flipped over twice at the Thompson Nationals trying to take over first place in this race from Jennings, to gain more national points.

The Daimler and the Elva Couriers were too fast for the Porsches in E and F on this high speed Glen course.

Two Super 90 Coupes ran in D production and it must be obvious to the S.C.C.A. Car Classification Committee that they have overmatched the 90 in with the ACE Bristols.

Congratulations go to Harold Zimdars, Milwaukee Region, for his F Production victory at the Elkhart Lake "500" races in a 1600N Speedster. This has been one of the few F Production Porsche victories this year and Kudos go to our Harold.

For the second year in a row, Charlie Dow and Ed Broadhead, of the Northeast Region, have won the New England S.C.C.A. Gaspe Rally. This rally, which probably comes the closest to the European form of rallying . . . high speed driving over long distances, started in Caribou, Maine, and ended in Quebec City, Canada. Other PCAers were in 2nd, 7th, and 24th. The team of Dow-Broadhead have established themselves as one of the best rally teams in the country. If you remember, they were third at the recent Parade Rally. All this has been in Ed's very interesting 1300 S with the converted Hirth Crankshaft.

Porsche has again won the European Hillclimb Championship for the third straight year. This year, Heini Walter, Switzerland, carried the honors of Porsche to victory in an RS 60.

Porsche and Cooper tied for the FIA World Championship Formula II Trophy with 26 points.

BEARINGS AND WHEELS

How many of you have heard the description of a car as a "bicycle bearing special?" (Slang for Detroit cars using ball bearing on wheels.) This, no doubt, has come about by frequent bearing failures. As long as they have been used, however, few people understand the adjustment of these, which, incidentally, is even more critical than the lubrication!

Forgetting the several methods employed of securing and adjusting these bearings on the spindle, approach the adjustment of these ball bearings with the thought that they MUST BE PRE-LOADED. Should you leave them slack only the underside of the cones will take the load, with the upper sides running with no load at all. Considering the pinpoint contact of these balls along with ever present road shock it isn't hard to see why they (the cones) give up so easily. If you will but compare the working areas of the number of balls, the outer race or cup, and the inner race or cone, it will be obvious that the cone has the least of all three, especially if it is secured with a good fit to the spindle (so it will not turn) and let only the underside do the work. This explains why the cone is first to show brinelling or pitting. Should the cone be a free fit on the spindle and be able to burn occasionally, this pitting will continue throughout the entire circumference, eventually ruining the balls and finally, the outer race or cup. This turning of the cones explains why a wheel bearing noise will come and go, making them hard to detect until they have reached a critical degree of pitting.

The theory of pre-loading them will distribute the load over the entire working area of the cone, whereby the weight of the car plus road shock tend to increase this preload distributing it over the entire periphery of the cones. Wheel bearing failure of ball bearings is nothing more than poor or loose adjustment!

Lubrication of the ball bearing is secondary. Starting with good, clean bearings, they require but a thin film or wipe of any good grade of wheel bearing grease. If you will take the time to recheck them for adjustment after you have run about 500 miles, to make certain that they have retained their pre-load you can forget wheel bearings for a long time.

Eliminating wheel bearing play will also eliminate some steering wander, thus improving your steering.

A good stunt when repacking any wheel bearing is to wipe a little of the grease over the inside of the hub, it will help reduce condensation by eliminating the contact of air against the metal. Do not, under any condition, stuff the hub or cap full of the grease; the seal will not retain it. A light film is sufficient.

Now, should your Porsche, for some reason, be equipped with roller bearings (it shouldn't be, nothing rolls like a ball), do not follow this procedure for adjustment. Refer instead, to adjustment procedure for roller bearings, which will be as different as night from day.

Ted Smith Northeast Region

FOR SALE

1960 Normal Coupe, Aetna Blue with matching interior. Koni shocks, Mich X tires. Carefully serviced and maintained, 19,000 miles, $3,100. Bill Sholar, 1542 Mt. Eagle Pl., Alexandria, Va.

1959 Porsche, 1600 Normal Coupe, Fjord Green with beige interior, 20,000 miles. Factory wind wings, Seat belts, Concours condition, $2,950. Shep Adkins, 921 Fairview Rd., Pittsburgh 38, Pa., Woodland 3-9788.

1959 red Super Hardtop Convertible with both tops, Michelin X tires, Becker radio, luggage rack, driving lights . . . many extras . . . 24,000 miles. $3295. Doctor Wayne L. Agey, 827 Ewing Road, Youngstown 12, Ohio. Sk 8-3425 or Sk 8-4655.

1959 1600N silver Coupe, black interior with head rest, 1800 miles, $2900.

1956 1600N blue Speedster, 27,000 miles, red interior, cloth top is like new. $2050. Glass-par top $160. A. M. Current, 848 Racine, Denver 8, Colorado.

1959 1600 S Hardtop, all black, Becker "Mexico" AM-FM radio. Replacing with Super-90 on '60 PCA Tour to Stuttgart. Ted Trump, 35 Church Lane, Scarsdale, New York.

Trade '57 Carrera Speedster for '58 or 59 1600 N or S Coupe. Carrera has 18,000 miles, Sebring exhaust, sport muffler, Telefunken radio, Lucas driving lights, 4,000 miles on valve job, new rings, new distributors. Bob Beal, 17 Llandaff Road, Havertown, Penna. Hilltop 6-2442.

WANTED

Front brake drums, backing plates, brake shoes, wheel cylinders from a '55 or '56 Porsche. Also factory shop manual for a two-piece crankcase Porsche. George P. Lyman, Jr., 189 Brooklawn Drive, Rochester 18, New York.

PRESIDENT:

Charles D. Beidler, Jr.,
Eastern Penna. Region, Langhorne, Pa.

Charlie has been one of the busiest PCAers we know of. He is a charter member of the Eastern Pennsylvania Region and its President for the past 3 years. Also for the past 3 years, he has been the editor of Porsche Panorama and a member of the National PCA Executive Board. A graduate of the Philadelphia College of Pharmacy and Science (1952), he is presently employed by Geigy Pharmaceuticals as a Professional Service Pharmacist. Married, the daddy of 3 young ardent Porsche fans, Charlie owns a 1956 1600 N Coupe (Normal?) which has been used for a family car, business, rallying, racing and hillclimbing.

VICE PRESIDENT:

Hayward R. Blake,
Chicago Region, Evanston, Illinois

Bud Blake attended the Graduate School of Design, Cambridge, Mass., and is currently Art Director with Alcoa. He plans to open his own Design Studio shortly.

Bud was an early Porsche enthusiast and is currently driving a '59 S Hardtop that he picked up on the 1st PCA Treffen. A former President of the Chicago Region, he guided that group to great eminence as Chairman of the successful 4th Porsche Parade at Nippersink in '59. Wife, Simone and son, Paul, have recently returned from France where they spent the summer with Simone's parents. Bud brings a wealth of organizational experience to PCA.

NOTICE OF ELECTION

The Nominating Committee: T. W. Twigg—Chairman, Potomac Region; D. K. Ewton, San Diego Region; G. L. Kelty, Arizona Region, announces the following slate of officers with this comment: The committee has tried to select candidates who, (1) are qualified by experience, (2) are willing and have the know-how to work for PCA, (3) are geographically located to insure close cooperation as a leadership team for the next two years.

This Notice of Election is published in accordance with the provisions of the Bylaws, Article IX.

Please cast your vote on the enclosed Post Card for the candidates as selected by the Nominating Committee. The Election Date is December 5 and all Ballots must be signed and postmarked no later than this date to be valid.

Your attention is directed to Section 4, Article IX of the Bylaws: "Any member shall be entitled to write in the name of any member in good standing as his choice for any office."

Wm. A. Andrews, Secretary

PCA TREFFEN 1961-1962

The November issue of Panorama will have the pictures and the story of the fabulous 3rd Porsche Stuttgart Tour. Meanwhile, here is an important announcement.

The Porsche Factory has requested that PCA "skip a year" and hold the next Treffen in 1962. The reasons for this request are more than valid. There is a very critical shortage of trained automotive workers in Germany and, because of this, the Factory has been unable to reach their estimated production figures. In fact, it is becoming increasingly difficult for the Factory to meet their commitments to the U.S. Porsche Importers and European Dealers.

While the Tour deliveries to PCA members may seem small, they are enough to help the Factory tremendously in fulfilling their delivery contracts. Sooooo . . . while it may be a long time to wait

SECRETARY:

Kenneth J. Button,
Northeast Region, Lexington, Mass.

Ken has been one of the sparkplugs of the Northeast Region, where he is presently Secretary. Before WW II, Ken was an accountant and has since attained a B.S. in Physics (Rochester University, 1950) and an M.S. in Nuclear Physics (1952). For the past 8 years he has been a research physicist at M.I.T. With wife, Jane, Ken is an avid participant in New England Porsche and sports car activities. In his job as Secretary of the Northeast Region, Ken has originated many devices for handling membership processing, and his thoughtful innovations will prove invaluable on the national level.

TREASURER:

Philip J. Liautaud,
Chicago Region, Chicago, Ill.

Phil Liautaud was born and raised in Chicago. His education, interrupted by Uncle Sam for 42 months, was finally completed at UCLA and at IIT in Chicago. He is now V.P. of Fendall Co., manufacturers of head and eye protection equipment. Phil's first Porsche was a '56 Super Coupe wherein he got his feet wet playing "hero driver" and whereby he met Jeannine (at Wilmot Hills Road Course). The knot was tied in time to honeymoon on the 1st Treffen. The two Liautaud kids, ages 15 and 3 months, are rapidly becoming Porsche Pushers. Phil no longer races (no room for racing gear AND playpens and strollers).

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till 1962 before we can again enjoy the thrill of a Stuttgart Tour, PCA is glad to cooperate. It is anticipated that by the end of next year, our favorite vehicles will no longer be in such short supply.

Long term plans call for a PCA Charter in Spring, 1962, to participate in the Porsche International Ski-Treffen at Zurs, Austria-via Boeing Jet from Chicago. So start to save the pennies now! Meanwhile, for 1961, plan to attend the VI Porsche Parade in the Berkshires, June 26-30 . . . it'll be the biggest and best yet!

CLUTCH AND BRAKE PEDALS

If, no matter how you adjust your seat, you're either too close or too far from the brake-clutch pedals for comfort, there is a solution that might help. Each pedal shaft is locked in with a nut and bolt to another shaft at about right angles. Each of the pedal shafts has three notches which permits varying its distance from the floor boards. This is good for shortlegged Porsche Pushers, although not for heeling and toeing. I never got the hang of this heel and toe bit. I am so badly coordinated that I brake when I want to accelerate and vice versa. Like going into the hairpin when you want to keep revolutions up as you downshift while braking like crazy.

What happens to me is that with heel on the accelerator and the toe on the brake pedal, the accelerator goes to the firewall while the brakes braketh not. This results in very exciting spins, spectacular slides and dashes up escape roads, if any, which is frequently not the case. Conversely, provided I get out of the turn in the first place and what I want now is go, go go, I am braking when full power is the drill. A Ferrari up the exhaust pipe can be most disconcerting. Aside from Ann, this heeling and toeing is another reason I quit racing.

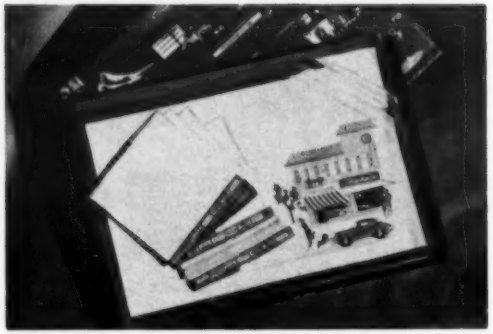
Carroll LeFon
Potomac Region

PORSCHE "PRETTIES"

FOR CHRISTMAS GIVING AND ALL THROUGH THE YEAR

Many items at sharply reduced prices. Some quantities are limited and will not be reordered. Make your selection at once to avoid delay in the Christmas mails.

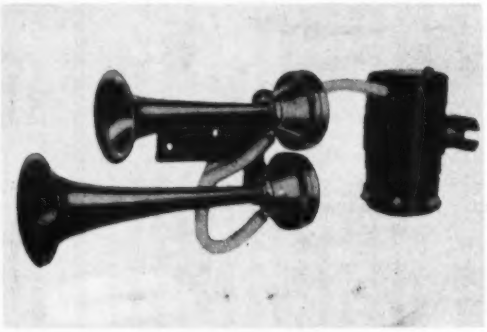
PLEASE STATE 1st AND 2nd COLOR CHOICES!



PORSCHE PLACE MAT SETS

She'll love the gay, brilliant colors in these 6-piece, cotton damask sets. A different Porsche scene in lively hand-blocked prints on each mat. Six napkins complete this unusual gift, in colorful Porsche gift box.

$8.50



IMPORTED ITALIAN AIR HORNS

Watch the "Caddies" move over when they hear the piercing, musical notes of these famous Fiamm Roadmaster Air Horns. No tank to fill, set is complete with electric air-compressor, all fittings and wiring diagram, easily installed.

$43.50

PORSCHE KEY CASE of real leather, stamped with Porsche and Reutter seals. Red, green, blue, black.

$1.00

PORSCHE CIGARETTE BOX, charcoal gray ceramic with Porsche victories in red, yellow, light gray.

$2.50

PORSCHE CIGARETTE CASES, of leather with Porsche crest. In pastel colors, gray, blue, beige.

$2.75

PORSCHE LIGHTERS, covered in red leather. Made by Rowena. Mostly small size for women, a few for men.

$2.75

SORRY
NO C.O.D.
Please send check or M.O. with your order.

PORSCHE KEY CASE of real leather, stamped with Porsche and Reutter seals. Red, green, blue, black.

$1.00

PORSCHE CIGARETTE BOX, charcoal gray ceramic with Porsche victories in red, yellow, light gray.

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$2.75

PORSCHE LIGHTERS, covered in red leather. Made by Rowena. Mostly small size for women, a few for men.

$2.75

CHRISTOPHORUS BINDERS in handsome beige plastic. Holds 6 copies without punching. Has label on spine.

$2.75

FENDER MIRRORS, streamlined with adjustable head. Fits either side, heavily chromed over brass.

$5.00

ALL-PURPOSE KLAMP LAMP, for night rallying or trouble lamp. Adjustable with 12 ft. cord. Clamps anywhere.

$4.50

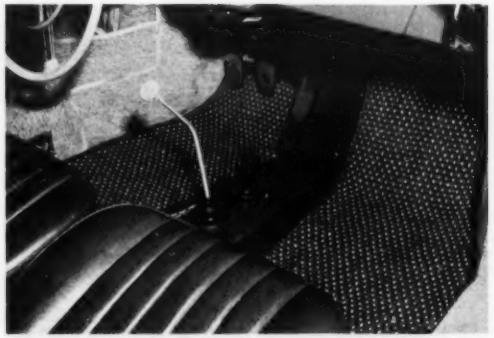
LUGGAGE CINCHER with 8 legs. Holds luggage on rack or inside. Heavy nylon elastic cord with spring hooks.

$3.95

PORSCHE SILK SCARVES

"Navigators" love these real silk scarves, a full 30" square. Each is multi-colored, printed with various model Porsche cars. Basic colors, Maroon or Forest Green. Give preference.

$5.25



PORSCHE KOKOS FLOOR MATS

Trim Porsche for Xmas with these protective floor mats. Prevents slipping, stops drafts. Easy to remove and keep clean. Choose colors to blend or contrast. Red, black, blue, green or natural. State second color choice.

$8.85

BE SAFE WITH SEAT BELTS

New, really SAFE belts. Tests over 6,000 lbs. Meets gov't. specification and SCCA with metal-to-metal-quick release buckle. Tie down bolt ⅜" thick, reinforcing plate .108 thick and 5.39 sq. in. area. Maroon, black and gray.

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Do It Yourself with this SWISS-MADE, PRECISION TOOL.

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HIGH PRESSURE

GREASE GUN

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- Nozzle Connector fully adjustable thru 360°
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HIRTH CRANKSHAFTS

Conversion of Hirth Crankshafts to Aluminum Sleeve Bearings

I have heard many old Supers banging away with bad roller bearings. With Hirth crankshafts no longer available and the price of converting to a normal shaft at almost $300 just for the parts, I considered the possibility of converting the Hirth crankshaft to plain bearings.

To date, the engines converted are my own 1954 1300 Super and Ted Smith's 1952 1500 Super. At present, a 1957 1600 Super is in the process of being converted.

I. Disassembly of the Hirth crankshaft.

After removing the crankshaft from my engine and removing the bearings and gears, the lock plates and their screws were removed. These parts must be kept separate and with the crank cheek that they came from. A special wrench is required to disassemble the cheeks. It is a 32 point box wrench of 42 mm diameter. To my knowledge, this wrench is not commercially available. Ted Smith fabricated the one that I used.

In order to disassemble the crankshaft, it was clamped on the bed of a small hydraulic press and the ram was then placed on the end of the wrench. The bolt was then loosened by applying pressure on the ram until it could be turned by hand. This procedure is followed on all four journals. These bolts are right handed thread. Before removing the loosened bolts, mark the rods as to journal number and the direction that they face. The number can be found on the edge of the cheek next to the journal and on the bolt for that journal. The crankshaft serial number is also on each cheek. The bolts, in addition to having the crankshaft number and journal number, also have a torque mark to be lined up with the one on its corresponding cheek. Thus, it can be seen why it is so important to keep the parts from each journal together.

If the journals are damaged, they must be ground to provide a suitable bearing surface. If the conversion is done before trouble arises, this problem will not arise. Those people who have the earlier shafts will have an easier job having their journals ground than those with the later shafts which have integral journals.

II. Making the Bearings.

Information concerning the aluminum bearings used was obtained from an article in the January 1960 issue of Power Transmission Design entitled "New Aluminum Sleeve Bearings".

The alloy chosen was S.A.E. 780 with special modification and T5 temper. This alloy is available from the Bunting Brass and Bronze Company, 152 Sixth Street, Cambridge, Massachusetts under their part number AL 1520. This part is a tube 1⅞" I.D. x 2½" O.D. x 13" long. This is enough material for two complete sets of rod bearings and it costs about $13.00.

With the alloy chosen, .0015 inches of clearance is required for each inch of journal diameter. Thus, the clearance required is .003 of an inch for a Hirth shaft COLD. This clearance is important, any less will lead to bearing seizure. In fact, seizure was experienced on the 1952 engine with .002" clearance.

The bearings were machined on a lathe from the above mentioned alloy allowing for the .003" journal clearance and .001" crush fit in the rod. The edge of the bearings was chamfered on the inside diameter in order to clear the splines on the journals. Remember to check each rod and journal, as their diameters may be different. If they are, the bearings must be made accordingly.

Once the bearings are made, heat the connecting rods on an electric stove to about 250 degrees Fahrenheit. Once the rod is heated, press the bearing for that rod in quickly. After the bearings and rod have cooled, check the clearance on the journal. It must be .003". If it is less, honing the bearing with a brake cylinder hone will usually give the .003 needed.

III. Modifying the Oiling System.

To prevent bearing seizure, it is necessary to enlarge the oil holes in the crankshaft. First, I enlarged the oil holes in the connecting rod journals to .25" diameter with a carbide drill. Then the metering jets in all main bearing journals were drilled out with a number 20 drill. Finally, to further increase lubrication, the hole in #2 main bearing was drilled completely through. A hole was drilled in #3 main journal at right angles to and intersecting with the original oil passage at the journal center. Both of these holes were made with a number 20 drill. It is not practical to drill #1 main journal, therefore an additional oil hole is added in the bearing shell half way between the existing holes.

Then to increase oil pressure to a 40 pound maximum, the oil pressure relief valve spring was shimmed 1/16". I would also recommend changing to the high capacity oil pump (part number 539.07.120) if your engine is a 1954 or earlier with the two piece case. However, I have experienced no trouble with the earlier pump on my car.

IV. Assembly.

When assembling the crankshaft, be careful that the face splines are on the journals and that the cheeks are clean. It is also imperative that the

oil holes line up and that the bolts and cheeks are mated properly. Once the shaft is loosely assembled, torque the bolts up to the lines marked on them and the cheek. Then lock the bolts with the proper lock plate and screw. Once the shaft is fully assembled and tightened up, make certain that the rods rotate freely and have sufficient clearance.

The crankshaft must now be straightened to Porsche tolerances. Once this is done, fit the main bearings and the timing gears. The crank is now ready to be returned to the engine.

V. For Best Results.

After reinstalling the engine in my car, I kept my engine revolutions below 3500 rpm for the first five hundred miles. After the initial run in, I gradually increased the revs up to maximum.

The rebuilt engine with the converted shaft sounds no different than a regular Super with the roller bearings. The big difference is the fact that it can now be idled without fear of damaging the bearings.

I have really thrashed it since the oil modifications and no trouble has appeared. The bearings are much easier on the journals if trouble develops, such as my seized bearing in Aspen. I drove it back as is at 3700 rpm with no noticeable damage to the rod or journal upon disassembly.

Edgar I. Broadhead, Jr.
Northeast Region

Editor's Note: This article is one of the most interesting we have had in Pano and certainly is a tribute to the ingenuity of these boys from the Northeast Region.

PHOTOS, STORIES and CREDITS

Many times in the past, Regions have sent in material for which no one has taken the time to give proper credit. When Pano comes out, cries of indignation go up and well they should . . . these, we would like to direct to the source of material. Please tell us who gets what credits. In the interest of setting the record straight, the following are noted:

July issue: Cover shot of Nord Stern Region was by Al Ominsky

July issue also: PCA at Laguna Seca story credit should go to Burt Propp, genial editor of the Golden Gate Newsletter.

Please note again that all changes of address for Panorama and National PCA membership records should be sent to:

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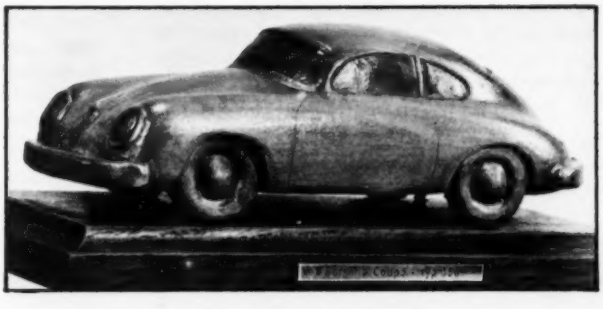

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To X or Not to X

There seems to be a difference of opinion between Porsche owners on the subject of fitting Michelin X tires to a Porsche. Most agree that they are terrific in the rain. But what about Michelins on dry roads under many and varied conditions?

This article isn't meant to be an exhaustive analysis of the subject, but it is the impression of one Porsche driver.

My 1958 1600S Speedster originally arrived in this country with Firestone Phoenix tires. This was purely a matter of chance because you never know in advance what tires you will get unless you specify a certain type and special order them. I have heard of the following installed at the factory as a matter of course: Firestone Phoenix, Dunlop CT, Dunlop Gold Seal, Metzler Sport, Continental Sport, Record, and Super Record. There may be others.

All these tires are of good quality, but there are definite differences between them. Although the most apparent differences are in tread design, the more important dissimilarities lie below the surface. The composition of the rubber, itself, is one factor; as are cord layout, cord material, and sidewall construction, to name a few.

The Phoenix, I believe, is a rather conventional kind of tire. It uses fabric cord in a more or less standard pattern. That is, the axes of the cords lie at an angle to the plane of revolution of the tire. The Michelin X, on the other hand, uses three layers of steel cord placed at right angles to the plane of revolution.

What every owner wants to know, of course, is: how will a given set of tires act on his car? The most important qualities are probably resistance to wear, road-holding ability, and ease of control in extreme situations.

Equipped with the Firestones, my Speedster handled well, like any well-behaved Porsche should, at both low and high speeds. In gymkhanas, to cite an instance of low-speed handling, formidable amounts of oversteer could be induced and controlled by judicious use of the brakes and throttle. This trait is an admirable one in gymkhanas because it helps in getting around pylons with the least delay.

At road speeds of 60 or more, these tires were quite manageable; the rear end could be hung out if desired, and the driver received ample warning before the tires lost their lateral adhesion. Resistance to wear was acceptable—the set lasted 30,000 miles under strenuous conditions because I drive my Porsche the way it is invited to be driven.

After the original tires wore out, I installed a set of Michelin X 165-15. This size corresponds roughly to 5.90-15, but their profile is quite similar to the 5.60-15 usually used on the 356A.

The change in the car was almost enough to be called drastic, perhaps dangerous. The first sensation I received from driving with these tires, aside from the fact that they forever look half-flat, is that they hold the road as if it were about to go out of style. Where previously the rear tended to hang out, I now found myself driving through at my leisure. This is why, perhaps, the Michelins could be called dangerous. They promote such a feeling of security and absolute control that it is all too easy to enter a corner too fast without realizing it. I discovered this the hard way. Practice is the answer; a slow working up to maximum speed is vital.

Something else came to light after the X's had been on for a few weeks. Probably because of some design factor, these tires seem to be quite sensitive to changes in vertical loading. In cornering at road speeds, rapid release of the accelerator causes the front end to pull further into the corner, or possibly the rear swings out to some extent. Whatever the exact action may be, the feeling is of a decreasing understeer. But along the same line, sudden deceleration at low speeds can cause the front end to plow to an excrutiating degree. If the brakes are applied and the wheel turned, the car is apt to keep going straight. Fortunately for general peace of mind, this happens only under extreme conditions, such as when making a hard turn in a gymkhana. It is of no consequence in normal driving, but it can be quite embarrassing at a gymkhana (an understeering Porsche!)

If there is any single statement that has been consistently made about Michelin tires, it is the claim that they give no warning when they are about to let go, and that it is impossible to control them once they have lost traction. In my opinion, this story was started by a rival tire manufacturer. Admittedly, the warning given is subtle, and there is no doubt that once they go, they go quickly. Necessary requisites are: a sensitive bottom; and good reaction times.

The trick in controlling a Michelin-equipped car in a drift is to begin the drift at your discretion, not at the tires'. Practice is necessary, but the general idea is to commence corrective action with the steering wheel when your judgment tells you that the tires are about to let go. At the same time, feed more power to the driving wheels, thereby breaking them loose. Because corrective procedures already are under way, the tires have no chance to leap out and create a loss-of-control situatioh. The fast breakaway of Michelin is, in my opinion, the reason for the "no control" rumors. If the driver's reflexes are up to the task, a skid can be corrected before it

goes too far. Once the point of no return has been passed—and it does come quickly after breakaway—there is nothing to do but hope.

Resistance to wear? The 13,000 miles on my set have produced very little wear. Apparently, they will go on forever.

Dynamometer tests have shown conclusively that different brands of tires greatly affect the horsepower actually transmitted to the road. One group in California ran an extensive series of dynamometer tests using various tires on the same car. Results showed that Michelin X tires are among the most efficient available in this respect. That is, more energy is transmitted from the axle to the road without being used up as heat in the tire itself. Switching to Michelins is as good as adding a few extra horsepower to your engine. In addition, SCCA has approved Michelin X tires for sustained racing speeds beyond the capability of a stock Normal or Super. What could be a better testimonial?

Arthur H. Frederick
Hudson-Champlain Region

MORE ON SHOCKS

There are four makes of shock absorbers available: stock Porsche, Koni, Monroe and Gabriel. There are other makes but our understanding is that for various reasons, they are not as suitable as the four we have mentioned. The stock shock is satisfactory, except for price and that it is not adjustable. The Koni is excellent but considerably more expensive than Monroe or Gabriel (maybe overrated, too). The domestic Monromatics and Gabriel adjustomatics are also excellent shocks and are listed in their catalog for Porsche and at $8.30 each (approx.) the price is right. The fact (as near as we can discover) that a one year guarantee is about par, would seem to indicate that any car a year or more old, *could* have a bad shock or shocks.

We installed Gabriel (more readily available at the time than Monroe) on a 1957 Coupe with only 20,000 miles, because the car seemed to have too much rock and roll. Since everything else appeared to be o.k., we decided it must be the shocks. The actual installation is comparatively simple. First, lift the car enough to remove the wheel. Block the brake drum at this height, then lower the car. (This puts the shock in position to eliminate bind.) Remove the old shock, install the new one. One bolt on each end of each shock, except the top end of the rear shocks, which is mounted with a nut.

One modification we found necessary was to grind about ½" off the end of the stud at the top of the rear shocks to prevent it from coming in contact with the body.

If you get these shocks, be sure to get the sleeves as listed with the shocks in the Gabriel catalog. Don't forget to set them at the firmness you prefer: normal, firm or extra firm. Our choice was at firm and for the first 1000 miles, the shocks seemed too rigid; but then they softened up to a very satisfactory ride.

Bud Sutherlin
Golden Gate Region Newsletter

L. A. REVS

Welcome to the Mob and the Job, new West Coast Coordinator, Phil Troth . . . The Mob can be seen from George Brokaw's list of Porsche registrations in July Pano . . . with 40% of the Porsches residing in the west coast states of Alaska, Washington, Oregon, California; there sure is a lot of coordinating to do. We claim Hawaii, which was not on the list, as west coast, too . . . How many Porsches are there? . . . Had to have the speedo repaired . . . it was originally 2mph faster than the tach at 65 mph . . . It came back 5 mph slower than the tach . . . Paul Sullivan (SCI, Aug. 1959) said to take my complaint to the Auto Club and check it out . . . Found the speedo was still 2 mph fast—a total of 9 mph off at 65! No wonder the newy model seemed faster than the old Speedster . . . will keep you posted on the speeding tickets . . . But why does the factory deliver a tach 11% fast when they want us American types to remember to keep the revs up? . . . L. A. Region Get Acquainted Rally had Bill Collier and daughter first, just keeping the guests from taking all the trophies . . . Morry Stillwell went out to get new plugs for his old Coupe and it cost him $2,000—just could not forget the newy ones at the Treffen and bought a 1960 white Roadster off the showroom floor . . . All Cabriolet and Roadster owners join the KSVLWW . . . "Keep Sun Visors Level With Windshields" . . . Keeps the bugs off them when the top is down.

Jack Case Los Angeles Region

Northeast Plans Now for Your Vacation in June.

VIPs Join Northeast Planning VI Parade

news from the regions

The Northeast Region moves rapidly ahead on plans for the Sixth Parade. They will hold a "Poor Man's Treffen" to the Jug End Barn on October 22-23, again checking out all facilities at the site of the next Parade.

Chicago Region's second annual Fast Gymkhana drew a large turn-out to the famous Meadowdale race course. Eight chicanes were set up at strategic places around the course. These were placed in such a way as to deliberately slow down the cars at dangerous areas. For each pylon which was hit, the contestant received a penalty of 20 seconds, which was added to his time. If a pylon was knocked down, the driver had to stop, back up, and re-set the pylon in its proper place. If a driver went through the chicane improperly, he received a penalty of three minutes. To make sure that everything was "fair and square," each contestant was followed around by an observer; and upon completion of the "tour," the "spy" would report the number of "faults" to the timing section.

The winning driver was Harold Zimdars, of the visiting Milwaukee Region. Two automotive casualties occurred when a couple of "heroes" missed shifts and as a result swallowed valves. Future plans call for the Second Annual Chicago Region Poor Man's Treffen.

Winners of the recent Connecticut Valley Region's Photo Rally were Olive Toombs and Clark Hamilton, reports Norm Millard, the Rally Chairman.

The Central New York Region followed up their very successful Porsche Pow Wow, reported on last issue, with their Fourth Annual Watkins Glen PCA tent at the Grand Prix races. John and Dorothy Henry have become known as the tent hosts each year. Wouldn't be the Glen without the Central New York Region Region's PCA tent and the Henry's.

Bob Claypool reports on the very successful PCA Milwaukee Region tent at the Elkhart Lake "500" races. Plans call for this to be a permanent thing at Elkhart.

Rallys, technical sessions and a dinner-dance are keeping activities moving in the Rocky Mountain Region.

The Potomac Region held a convention type meeting recently. Experts in the various fields held forth under signs designating their specialties to discuss and enlighten the membership in the fine points of their subject.

The Specialty	The Expert
Tires	Bob Zveare of Leeth Tires
Autocrosses	Doc Peterson
Rallies	Capt. Thomas
Racing	Ken Leith
Technical	Emil Schaeffer of Manhattan Auto
Drinking	Carrol LeFon

The Big Sixth Annual Potomac Region Color Rally comes up in October. This is the oldest PCA rally in the United States.

Saddle sore or . . . through the canyons describes an unusual Sleeping Bag Tour of the Golden Gate Region. The tour through the mountains to the Plumas Eureka State Park provided the dudes with the experience of spending a night with nature.

cover photo

Cover photo is by Paul Madigan, PCA San Diego and is titled, "PCAers Meet'."

PCA GIFT SUGGESTIONS

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Identify your Region! Fits securely to your Car Badge. Made of anodized aluminum, weatherproof. Region name in raised letters.....ea. **$1.50**

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A Handsome PCA emblem, embroidered silk, can be cleaned. In red, blue, black, silver and white.....ea. **$2.50**

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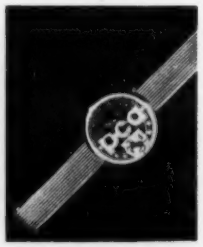

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Same as Emblem but with pin and safety clasp. Wear this on your hat, cap or wherever,
ea. **$2.00**

PCA EMBLEM
In 4 colors and chrome, 1 inch in diameter. Makes a fine Dash Plaque or display on Trophies.....ea. **$1.75**

pca personality

Ann and Jim Newton

The Newton's, shown here with their silver won at the Cent. N. Y. Region "Porsche Pow Wow," are real Porsche enthusiasts. Rallies, gymkhanas, concours and ice-racing are but a few of their Porsche activities.

Ann was the winner of the Woman's Annual Trophy from SCCA Detroit Region in 1959 and they have participated in most of the Porsche Parades and two of the International Porsche Treffens.

Jim is Sales Manager of the Electrowriter Div. of the Comptometer Corp. in Detroit and as President of PCA S.E. Michigan Region brings the message of PCA to the "Auto City."

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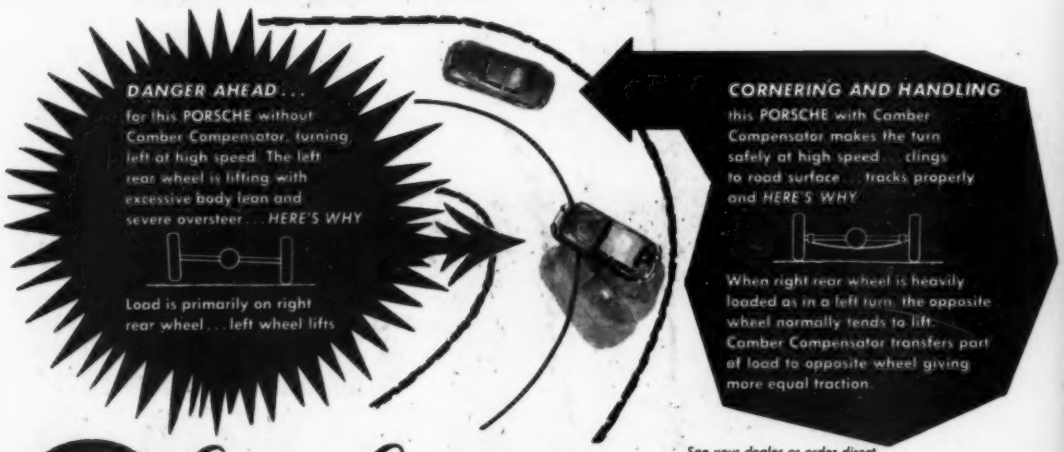
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Load is primarily on right rear wheel... left wheel lifts
CORNERING AND HANDLING
this PORSCHE with Camber Compensator makes the turn safely at high speed... clings to road surface... tracks properly and HERE'S WHY
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